

FIELD TRIPS OF THE CLUB

JOINT TRIP WITH THE SOUTHERN APPALACHIAN BOTANICAL
CLUB IN SOUTHERN NEW JERSEY,
JUNE 17-20, 1937

The Torrey Botanical Club met with the southern botanists at Pennsville, N. J., on Thursday morning, (June 17) for a weekend of investigation of the interesting southern New Jersey flora. Under the guidance of Dr. John M. Fogg, Jr., Assistant Professor of Botany and Curator of the Herbarium, University of Pennsylvania, the group drove to Salem, where a stop was made to observe the famous Charter oak, which was a large tree when the Friend's Burial Ground was established beneath it in 1676, and which has now attained a circumference, at six feet from the ground, of 27 feet 8 inches, and a height of over 80 feet, while the crown spread is about 120 feet. Following the brief stop here, the party motored to Elsinboro Point. In the afternoon the party went on to a point on a sandy beach four miles west of Hancock Bridge. Here Dr. Fogg and his party from the University of Pennsylvania left the group, Dr. John A. Small, Assistant Professor of Botany, New Jersey College for Women, becoming the leader for the remainder of the trip. At Parvin State Park, near Vineland, lodging had been arranged through the courtesy of J. J. Truncer, of the Park's staff.

Next morning the party struck northwards into the heart of the famous pine barrens, following U. S. Route 206, a splendid concrete highway, through a virtually uninhabited region. The first stop was made at Albertson Brook, in Atlantic County, where, in the bogs that adjoined the highway, Dr. Small and Dr. M. A. Chrysler, of Rutgers University, introduced novelties among pine barren endemics and their associates so rapidly that we were soon gasping for breath. Plants recorded here included *Ilex glabra*, *Magnolia virginiana*, *Chamaedaphne calyculata*, *Chamaecyparis thyoides*, *Rhododendron viscosum*, *Vaccinium corymbosum*, *V. macrocarpon*, *Lyonia mariana*, *Krigia virginica*, *Castalia odorata*, *Iris prismatica*, and various species of *Rynchospora*, *Cyperus*, *Eriocaulon*, and *Lycopodium*. Of special interest were three species of sundew, *Drosera rotundifolia*, *D. longifolia*, and *D. filiformis*; pyxie or flowering moss, *Pyxidanthera barbu-*

lata; *Hudsonia ericoides*; the sand myrtle, *Leiophyllum buxifolium*; the red-root, *Lachnanthes tinctoria*; and, in the drier places, the turkey-beard, *Xerophyllum asphodeloides*. Somewhat further along, at Atsion, we were given an opportunity to review some of these, while encountering still more novelties, including *Lobelia Canbyi*, *Arenaria caroliniana*, *Euphorbia ipecacuanha*, and *Rubus cunefolius*. Lunching on a side road near Atsion, we observed the drier phase of the barrens, beneath pines and oaks. After lunch a delightful drive along a narrow, sandy lane through an unbroken pine barren forest brought us to the neighborhood of Hampton Furnace, on the Batsto River. The name is reminiscent of the days when iron was obtained from rocks underlying the bogs, but the region is now virtually without human habitation. Here Dr. Small, having set our feet moving in the proper direction, allowed us to have the thrill of discovering for ourselves the climbing fern, *Lygodium palmatum*, entwined among the dense vegetation fringing the narrow river, and here we also first came upon the little plants that "eat bugs and ants and gnats and flies," members of the "new carnivora" — *Sarracenia purpurea*.

At Skits Branch, precariously treading upon the firmer clumps and clinging to bushes to keep from sinking beneath the muck, we felt we were truly "in the heart of the pine barrens," and especially after we had found *Narthecium americanum*, the bog asphodel, and *Lophiola aurea*, we felt that Witmer Stone's enthusiastic portrayal of the pine barrens, which Dr. Small read to us here, must have been prepared at this very spot.

Coming back upon a paved highway along the Pole Branch of Wading River, little colonies of curly grass, *Schizaea pusilla*, rewarded our search. Passing through Chatsworth, "the capital of the pine barrens," we came out upon New Jersey State Route 40, stopping by the roadside near Whiting to observe a clump of bear-berry, *Arctostaphylos Uva-ursi*. At Lakehurst we viewed from afar the wreckage of the Hindenburg, after which we proceeded via Lakewood to Bay Head and drove southwards in the evening to Seaside Park, where we studied the succession of vegetation on the dunes, from almost bare sand, dotted here and there by *Carex macrosperma* and *Artemisia Stelleriana*, to the pseudo-turf formed by *Hudsonia* and finally to a sparse

and youthful forest of oaks and pines. Crossing Barnegat Bay, we spent the night in a tourist camp south of Tom's River on United States Route 9.

On the 19th, an early morning stop at Forked River gave us another chance to observe several of the denizens of the bogs we had seen so often the preceding day and to add to the ever-mounting list of species of *Lycopodium*, *Drosera*, and *Utricularia*. At 11:00 A.M. we met, at the intersection of Route 4 and the Cedar Bridge road in Barnegat, a party from New Jersey and New York coming down for the week-end. The augmented party then struck westwards and was soon in the heart of The Plains, stopping occasionally on the summit of a slight elevation for a glimpse of the peculiar forest in which, as far as the eye could see in every direction, the trees, although apparently very old, did not greatly exceed an average of four feet in height. The day's itinerary led us through the great commercial cranberry producing areas and to Penn State Forest for lunch. After lunch the investigation of a most colorful bog near the ghost town of Martha led the party to acclaim Dr. Small as having "saved the best unto the last," and the crackling and flashing of a vigorous electric storm, accompanied by a torrential downpour of rain, provided a dramatic ceremony to signalize our farewell to the pine barrens. Through the rain and the heavy holiday traffic seaward-bound, we made our way southwards to Cape May for the night.

A visit in the evening to Otway Brown led to Mr. Brown's guiding us, on the morning of the 20th, to some of his favorite collecting grounds nearby, where we recorded an amazingly long list of grasses and sedges, and a few other novelties such as *Sclerolepis uniflora*, *Quercus phellos*, and *Linaria canadensis*. The party then officially broke up, the southern members starting their long drive homewards, the others spending the day more leisurely with stops at interesting spots as they traversed the lesser distances they were required to travel. Pleasant memories of the four-day tour led the author to trust that these intersectional visits may become traditional features of the two Clubs' annual field schedules.

An account of the first day of the trip by Dr. Fogg follows this.

EARL L. CORE

WEST VIRGINIA UNIVERSITY
MORGANTOWN

TRIP OF THURSDAY, JUNE 17

The day was devoted to studying the flora of the eastern, or New Jersey, side of the Delaware River within the limits of Salem County. Particular attention was paid to the relatively high number of maritime species which, although here far from the open sea, occur commonly on the beaches and marshes of this county.

While waiting for the party to assemble at Pennsville, an unfamiliar *Rubus* was found growing luxuriantly on the sandy river banks near the wharf. This proved to be *R. ulmifolius*, a European species doubtless escaped from cultivation and not previously recorded from Salem County.

The first locality visited was Oakwood Beach, where *Lilaeopsis chinensis* (L.) Kuntze (*L. lineata* of the Manuals) was seen growing in great profusion and in full flower. Formerly considered rare in southern New Jersey, this curious umbellifer is now known to occur along many miles of the Delaware River shore where it is completely covered by brackish water at high tide. Other maritime plants detected at this station were *Spartina alternifolia*, var. *pilosa*, *Scirpus robustus*, *Acnida cannabina* and *Ptilimnium capillaceum*.

The next stop was at Elsinboro Point, where the party had the good fortune to discover a new locality for *Lophotocarpus spongiosus*. This species, which has only recently been restored to the flora of southern New Jersey (see Barton, No. 17, 1935), was here found profusely occupying a large tidal marsh along with *Peltandra virginica*. It was in full flower on this date, its white petals suggesting a *Sagittaria*, from which, however, its blunt sepals and thick, curved pedicels distinguish it.

On the sandy beach below Elsinboro Point were collected *Tripsacum dactyloides*, *Panicum amarum* and *Ammophila breviligulata*, all maritime species here at or near the inland limit of their ranges, so far as concerns the Delaware drainage.

The party then moved three miles down the river to a point near the mouth of Alloway Creek, some three miles west of Hancock's Bridge. Here, as might be expected (due to greater proximity to the mouth of the Bay), an even larger number of maritime species was encountered. In addition to the plants already seen at Oakwood Beach and Elsinboro Point, the broad sandy beach yielded *Spartina cynosuroides*, *S. patens*, *Atriplex*

patula, var. *hastata*, *Cakile edentula* and *Solidago sempervirens*, while on the open brackish meadows were found *Distichlis spicata*, *Setaria geniculata*, *Carex hormathodes*, *Cyperus ferax*, *C. filicinus*, *Juncus Gerardi*, *Baccharis halimifolia* and *Iva frutescens*.

Nearly all of these species, until a few years ago, were regarded as absent from or very rare in the Delaware drainage north of Cape May County. Recent study, however, has demonstrated that at favorable localities they may be found far up the Delaware River to the northern limits of Salem County.

JOHN M. FOGG, JR.

THE CLUB'S 1937 TRIP TO QUEBEC

Fifteen members and guests of the Torrey Botanical Club took part in its two weeks trip into northern Maine, the Shick-shock Mountains of Gaspé, Quebec and the Laurentides National Forest north of the St. Lawrence River, from July 2 to 18, 1937. Our guides said it was the largest party that had ever entered the mountains, and it was undoubtedly the largest botanical group in the region since the Harvard expeditions under Professors Fernald and Collins several years before.

The party travelled in six automobiles, starting from scattered points in New York, New Jersey, Maine and Pennsylvania, and assembling Saturday evening, July 3, at Stratton, Me. On Sunday, July 4, we drove around via Dead River Valley, and climbed along the Appalachian Trail to the eastern summit of Mount Bigelow, at 4070 feet. The views of this group of mountains in Western Maine were splendid. The area above timber sustained a number of alpine plants, including *Arenaria groenlandica*, *Potentilla tridentata*, *Empetrum nigrum*, *Vaccinium uliginosum*, and *V. Vitis-Idaea*. The lemon yellow crustose lichen, *Rhizocarpon geographicum*, covered the summit ledges. *Cetrarias* were numerous, including *islandica*, *cucullata*, *nivalis* and *aculeata*. The writer found many robust *Clandoniae*, including the largest specimens of *C. elongata* he had ever seen.

On the following day the party proceeded to Greenville on Moosehead Lake, and followed a rough but interesting route via Ripogenus Dam on the West Branch of the Penobscot River, and between Mount Katahdin and Doubletop Mountain, past Baxter State Park, to Millinocket, spending that night at Houl-

ton. On the next day, July 6, we drove across New Brunswick to Matapedia and along the south side of Gaspé, to New Richmond. On the 7th, we entered the mountains, with a party of five guides, headed by the silent but competent Stillman Harrison. Our arrangements for camping, shelter and food had been efficiently made by Dudley Dimock, of New Richmond. We were particularly pleased with our cook, Earl Budd, an old army cook, whose good food, and good nature were among the high lights of the trip.

We drove in along the road on the east side of the Grand Cascapedia, which some of us had followed before, 49 miles to the Federal Lead and Zinc Mine, where we left the cars. Harrison had been in a few days ahead, with his men and horses and wagon and had established a camp for us on the south side of Tabletop Mountain, our objective for this part of the trip. In the afternoon, we walked in, somewhat wetted by a shower, to Lake St. Anne. Those of us who were there before, when we found it a lonely place, inhabited only by screeching loons, were surprised to find a party of French-Canadians building a large log cabin. Their boss proved to be M. Ernest Menard, Inspector-General of Fish and Game for the Quebec Department of Forests, and Superintendent of the new Gaspesia National Park, then being surveyed. He was building the cabin to be used first for the surveying party, and later as a rangers' cabin. He insisted on giving up his tent to the ladies of our party, as we were short one tent, others being at our base camp. He showed us the survey maps, indicating that the new Park will include Mount Albert, Tabletop, the Gorge of the St. Anne River, and Lakes St. Anne and Madeleine, about 250,000 acres. It will be a plant and animal sanctuary, intended, for one thing, to protect the caribou, the only herd south of the St. Lawrence. He was much pleased to see that we were using to identify plants, Professor Marie-Victorin's "Flore Laurentienne," and some of his separate monographs on various groups of plants. He told us that the Quebec Department of Education had given over 1000 copies of the "Flore" to students in secondary schools and colleges as prizes for proficiency in botany, and that his own daughter had won one of them. We also met an interesting person, Capt. Samuel Coté, who was the guide of Professors Fernald and Collins, on their Harvard expeditions years before and

of Professor A. P. Coleman of McGill University, authority on the glacial geology of the region, whose work we used on the trip. Capt. Coté proudly showed us letters of appreciation from all three scientists and was pleased that we knew of him.

Next day we followed the fire road toward Lake Madeleine, around the south and west slopes of Mount Sterling, to our camp on Fisher Branch of the River Madeleine, within sight of Tabletop. Along the road at several places, a new and handsome fern was *Phegopteris Robertiana*, with fronds somewhat like those of *P. dryopteris*, but stiffer and with smaller lateral pinnae. Another new plant was *Lonicera involucrata*, with large bracts. We also saw large colonies of the handsome foliose lichen, *Nephroma arcticum*, with disks large as nickels.

Our base camp was prettily located, and next morning, we started up Tabletop. Harrison, our head guide, had spotted a route part way but at the top of the climb he made the trail fresh before us, as fast as we wished to go, a novel experience of seeing a trail blazed and cleared before our eyes. He took us across the plateau and at length above the scrub spruce and fir to an open summit south of Mount Richardson, the highest summit on this part of the Tabletop Plateau. Interesting plants were *Lycopodium Selago* and *sabinaefolium*; *Phyllodoce caerulea*, as well as *Vacciniums*, *Empetrum*, *Ledum* and *Cassiope hypnoides*. For those of us who were on Mount Albert the year before, it was interesting to note that some plants which evidently prefer the serpentine rocks of that summit do not like the granite of Tabletop, such as *Lychnis alpina*, *Statice labradorica*, var. *submutica*, and *Adiantum pedatum*, var. *aleuticum*, none of which we found in the vicinity of Mount Richardson. However the lichen *Rhizocarpon geographicum*, characteristic of northern mountain tops, which we looked for in vain on Mount Albert's serpentine ledges in 1936 was plentiful on the Tabletop granite.

On the way out we climbed over Sterling Mountain, on which *Cladoniae*, especially gorgeously scarlet fruited *Cladonia pleurota*, f. *coronata*, were numerous. The views were grand, with the snowfields on Mount Albert gleaming in the north. At one point the road had been carried away for a hundred yards by a slide, and there our guides had to unhitch the horses, lead them gently across the narrow spot, take the wagon apart and carry it across in pieces and put it together again on the other side, gather up our duffel and go on.

We then drove out to the south side highway, spent a night comfortably at the Five Oaks, Shigewake, getting hot baths to clean off the woods dirt. Next day we gave the bird lovers a treat by visiting the sanctuary on Bonaventure Island, a sight that no one visiting Gaspé should miss. Continuing on around the point of the peninsula, spending a night at Fox River, we spent an easy going day westward along the north shore cliffs, where interesting plants were the Butterwort, *Pinguicula vulgaris*, with its pretty violet flowers and greasy leaves, the delicate fern, *Cryptogramma Stelleri*, *Plantago juncooides* and others.

After spending the night at Rimouski, we put in the next morning visiting the marine biological laboratory of the University of Laval, Quebec, at Trois Pistoles where the staff, clergy and lay, entertained us hospitably. On the way to the ferry at Rivière du Loup, we made a detour, at the suggestion of Frère Marie-Victorin, to Gros Cacouna, a rocky knob once an island in the St. Lawrence, to find *Cornus suecica*, differing from the common *C. canadensis*, in possessing two to four whorls of leaves, instead of only one.

Crossing to Tadoussac, where the writer found many unusual *Cladoniae*, the party took the boat up the famous Saguenay, and after a cloudy, unpromising evening, the sun broke through and gave us one of the most magnificent sunsets the crew of the fine steamer *Quebec* ever recalled. The steep granite walls of this river suggested that they must be sanctuaries for many plants. Next day, after a night at Chicoutimi, we visited the outlet of Lake St. Jean, and then struck south through the Laurentides National Park to Quebec. This route will be worthy of more attention another time, for it looks interesting botanically everywhere and, when the road improvements are done, it will be more comfortably accessible for American tourists. *Cladoniae*, over the areas once burned and now growing up again, were marvellously robust and dense. A common plant in the swamps was the Baked Apple Berry, *Rubus Chamaemorus*.

We spent the next day sight-seeing in Quebec. Some visited the Provincial Museum where they found a good herbarium. Then we went on into Vermont stopping to drive up Mount Mansfield to look again at alpine plants; to pay a visit to Dr. Will S. Monroe, and his great dogs at Couching Lion Farm, and then on our various ways.

RAYMOND H. TORREY